

IN THE UNITED STATES PATENT & TRADEMARK OFFICE
GROUP ART UNIT 1731

Applicant: Christopher Raymond JONES
Assignee: Rhodia Consumer Specialties Limited
Appln No: 10/542,432
Filed: January 12 2004
For: TREATING SLURRIES
Examiner: Peter F. Godenschwager

DECLARATION

Honourable Commissioner of Patent & Trade Marks,

Sir,

CHRISTOPHER RAYMOND JONES declares as follows:

1. That he is Christopher Raymond Jones who invented the subject matter of the present application.
2. That he has read the Office Action dated 23 July 2010 and US 6 402 824 (Freeman), WO 00/04777 (Ajoku) and US 3 336 221 (Ralston) cited by the Examiner on the present application.
3. That prior to the present invention being made, THP⁺ salts such as THPS were known as biocidal agents. This is shown in, for example, Ajoku. However, it was not known that these THP⁺ salt biocidal agents would cause flocculation of slurries that were previously homogeneous. It was also not expected that this flocculation effect would

occur. The expectation would have been that a biocidal agent could just be added to a homogeneous slurry to achieve an anti-bacterial effect.

4. That none of Freeman, Ajoku and Ralston disclose or suggest that THP⁺ salt biocidal agents would cause flocculation of slurries that were previously homogeneous.

5. That there was therefore no reason for the skilled artisan to think he should include a dispersant when adding a THP⁺ salt biocidal agent to a homogeneous slurry to achieve a biocidal effect. In the absence of any recognition or expectation that a flocculation effect would be caused in relation to a previously homogeneous slurry, there was no motivation to include a dispersant.

6. That he, as inventor, as part of the invention, recognised that there was, unexpectedly, a flocculation effect when THP⁺ salt biocidal agents, such as THPS, were added to homogeneous slurries. Thus he recognised that there was a need for a dispersant to also be added when THP⁺ salts are to be used as a biocide for slurries, to counter this unexpected flocculation effect.

7. That he, as inventor, as part of the invention, further recognised that, surprisingly, generic dispersants would not control the unexpected flocculation of previously homogeneous slurries as caused by the addition of THP⁺ salt biocidal agents. In fact, many known dispersants made the flocculation problem worse.

8. That he, as inventor, was able to determine that only a specific group of dispersants was successful in preventing the flocculation of previously homogenous slurries in the presence of THP⁺ salt biocidal agents such as THPS.

9. That, in particular, as part of the invention he determined that dispersants that were either (i) phosphonated compounds containing at least one tertiary nitrogen atom or ii) homopolymers of unsaturated acids were able to prevent the flocculation of previously homogenous slurries in the presence of THP⁺ salt biocidal agents, such as THPS.

10. That none of Freeman, Ajoku and Ralston disclose or suggest that dispersants which are (i) phosphonated compounds containing at least one tertiary nitrogen atom or (ii) homopolymers of unsaturated acids would be able to prevent the flocculation of previously homogenous slurries in the presence of THP⁺ salt biocidal agents, or that other dispersants would not be able to achieve this effect.

11. That he does therefore believe that the present invention was not obvious from the teachings of Freeman, Ajoku and Ralston, either alone or in combination.

The undersigned hereby declares that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made in the knowledge that wilful false statements and the like so made are punishable by fine or imprisonment or both, under Section 1001 of Title 18 of the United States Code, and that such wilful false statements may jeopardise the validity of the application or any patent issued thereon.

Signed



Date: 12th October 2010

Christopher Raymond JONES